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July 2, 2015

VIA ELECTRONIC MAIL AND US MAIL
Michael E. Malaier, Chief
Air Assessment Unit
Field Operations Division
Alabama Department of Environmental Management
P.O. Box 301463, Montgomery, AL 36130-1463

Re: State of Alabama Ambient Air Monitoring Plan for 2015

Dear Mr. Malaier:

GASP[1] respectfully submits the following comment to the Alabama Department of Environmental Management (ADEM) on the State of Alabama Ambient Air Monitoring Plan for 2015 ("the Plan"). We appreciate the opportunity to make these public comments. GASP not only looks forward to continued compliance with the Clean Air Act (CAA) and the National Ambient Air Quality Standards (NAAQS), but we also will continue to advocate for stronger, more comprehensive air monitoring throughout Alabama.

I. Purpose

With members across the state of Alabama, GASP is a health advocacy organization focused on air quality issues. Accordingly, GASP has a vested interest in the Plan. We are pleased to see decreases in many criteria and non-criteria pollutants.[2] However, we maintain that a comparison to the past is the incorrect standard. We encourage the regulatory agencies in Alabama—ADEM, the Jefferson County Department of Health (JCDH) and the Huntsville Department of Natural Resources and Environmental Management (HDNREM)—to not simply comply with the NAAQS, but to fully embrace their duty of protecting Alabama's air quality. Our detailed comments will highlight specific aspects of the Plan that could be improved to reach aspirational, not mere threshold standards of compliance for ensuring that all Alabamians breathe clean, healthy air.

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[1]GASP is a non-profit health advocacy organization fighting for healthy air in Alabama. We strive to reduce air pollution through education and advocacy — because Alabamians deserve clean, healthy air. http://www.gaspgroup.org

[2] The Birmingham-Hoover MSA saw decreases in three year averages for ozone and particulate matter FOR 2011-2013. U.S. EPA AirData, http://www.epa.gov/airdata (last visited Jun. 26, 2015); American Lung Association, State of the Air 2014 (2014) http://www.stateoftheair.org/2015/assets/ALA_State_of_the_Air_2015.pdf (last visited Jun. 29, 2015)

II. Background

A. Summary of historical air quality issues in Alabama

Birmingham, a major industrial hub, was the subject of the federal government's first intervention in an air pollution emergency. Between June 18 1970 and May 1, 1971, particulates exceeded the 260 level for 54 days in Birmingham.[3] The air pollution was worse in North Birmingham, a densely populated poor and lower-middle-class neighborhood where a particulate count of 500 was common and the mean was 287.[4] Although Birmingham is no longer in a crisis warranting the intervention of the federal government, as we stated previously, a comparison to the past is the incorrect standard. North Birmingham communities still suffer from a disproportionate share of air pollution.[5]

Although the Birmingham metro received the most attention for its air quality issues, the entire state of Alabama, as recent as 2011[6] ranked as twelfth (12th) in the nation for toxic air pollution. Many areas of rural Alabama and other major cities have historically experienced unhealthy air quality.[7] From 2011-2013, Madison, Jefferson, Mobile, Morgan and Shelby Counties had significant numbers of high ozone days.[8] The Birmingham-Hoover-Talladega Metropolitan Statistical Area (MSA) still ranks 17th for People at Risk in 25 U.S. Cities Most Polluted by Year-Round Particle Pollution.[9]

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[3] Sloyan, Patrick J. The day they shut down Birmingham. (1972). *The Washington Monthly*, 41-51. Retrieved from http://www.unz.org/Pub/WashingtonMonthly-1972may-00041

[4] Id.

[5] For 2014, The North Birmingham monitor (AQS ID-073-0023) shows higher levels than all other monitors throughout the Birmingham-Hoover MSA for PM 2.5 (the Sloss Shuttlesworth monitor, AQS ID 01-073-6004 that monitors $PM_{2.5}$ is also located in the North Birmingham community and shows levels higher than the other monitors for as well), SO^2, 8 hour ozone, and 24 hour PM_{10} (measured from the Sloss Shuttlesworth monitor). U.S. EPA AirData, http://www.epa.gov/airdata (last visited Jun. 26, 2015).

[6] National Resource Defense Council. "Toxic Power" at 16. Retrieved from http://docs.nrdc.org/air/files/air_11072001a.pdf

[7] Gadsden, Alabama was a major industrial hub throughout much of the 20th century. Goodyear Tire and Rubber, Republic Steel and Gulf Steel all operated within Gadsden. Etowah County, where Gadsden sits, historically was designated as nonattainment for the 24 hour $PM_{2.5}$ standard (Jefferson was also nonattainment). Historically, Jefferson, Shelby and a small portion of Walker County were designated as nonattainment for the annual $PM_{2,5}$ standard. As of 2013, Jefferson, Shelby and Walker County reached attainment status for $PM_{2.5}$ and ozone (Etowah County is listed as unclassified). Alabama Partners for Clean Air, What's Our Air Quality Status, http://alabamacleanair.org/air-quality/about-air-quality/ (last visited Jun. 29. 2015); 40 C.F.R. § 81.301 (2012).

[8] Jefferson County had 29 orange days and 1 red day; Madison County had 6 orange days; Mobile County had 3 orange days; Morgan County had 3 orange days; Shelby County had 8 orange days. American Lung Association, State of the Air 2015 (2015) http://www.stateoftheair.org/2015/assets/ALA_State_of_the_Air_2015.pdf (last visited Jun. 29, 2015).

[9] Id.

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Accordingly, where Alabama, and especially the Birmingham-Hoover-Talladega MSA, has both historical air quality issues and continues to experience poor air quality, Alabama's Ambient Air Monitoring Plan for 2015 should seek to further improve Alabama's air quality.

B. As proposals to the National Ambient Air Quality Standards (NAAQS) strengthen standards, Alabama should be planning to implement more, not less monitoring

On December 17, 2014, the EPA proposed to make new revisions to the primary and secondary NAAQS standards for ozone to provide requisite protection for public health and welfare.[10] EPA proposes to revise the standards within the range of .065 and .070 ppm.

As previously mentioned, Birmingham, Alabama, has a history of noncompliance with the NAAQS[11] that has not only affected the health of Birmingham's citizens, but also Birmingham's economic development. According to the Alabama Partners for Clean Air, Birmingham's non-attainment designation over the past two decades cost the area "15 major manufacturing facilities, 11,000 jobs and nearly $5 billion worth of investment" in the 1990s alone.[12] The Birmingham metro area reached attainment in 2013 under the 75 parts per billion (ppb) standard. In 2014, ozone concentration data for the Birmingham metro area showed that the region would be in attainment for even a 70 ppb standard. However, should EPA promulgate its final rule for the lower end of the range at 65 ppb, Birmingham would likely be out of attainment again.

GASP recognizes that even if the final rule sets a standard of .065 ppm, Alabama will have several years to comply with the new standards. Although state agencies cannot yet plan for a rule that is not yet final, they should be creating long term plans in anticipation of a stronger NAAQS standard for ozone. Especially where several parts of Alabama still experience a significant number of ozone days, and such air pollution has historically negatively affected such regions, state agencies should be planning for more, not less monitoring as regulations tighten.

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[10] National Ambient Air Quality Standards for Ozone, 79 Fed. Reg. 75233 (December 17, 2014) (to be codified at 40 C.F.R. pts. 50, 51, 52 et al.)

[11] In 2013, Birmingham was classed by the EPA as being "in attainment" of the six primary air quality standards measured by federal officials. Raines, Ben. "Birmingham meets federal air quality standards for the first time in 30 years (updated)." AL.com. 2013, January 9. http://blog.al.com/live/2013/01/birmingham_meets_federal_air_q.html (last visited Jun. 29, 2015).

[12] Alabama Partners for Clean Air. "What is our air quality status?" http://alabamacleanair.org/air-quality/about-air-quality/ (last visited Jun. 29, 2015).

III. Comments on each agency's annual review of their portion of the current ambient air quality network and proposed network to be implemented during [2015][13]

A. ADEM

1. The Mobile MSA will go from having a monitoring site for PM_{10} to no longer having a site that monitors PM_{10}.

In the State of Alabama Ambient Air Monitoring Plan for 2014, ADEM stated that "[d]ue to problems with the infrastructure at the WKRG site and the expense […] required to maintain the site, ADEM has requested to close this site in a March 7, 2014 letter to Region 4."[14] In the Plan for 2015, ADEM confirms that the WKRG PM_{10} monitor was closed on December 29, 2014. PM_{10} levels for the WKRG monitor for 2010-2014 are shown in **TABLE 1** below:

TABLE 1: PM_{10} 24 HOUR-WKRG MONITOR[15]

Year	Monitor Number	First Max	Second Max
2014	3	32	32
	4	34	31
2013	3	45	40
	4	45	40
2012	3	42	34
	4	36	35
2011	3	59	57
	4	59	58
2010	3	76	53
	4	77	54

GASP recognizes that the site-level statistics above are within the NAAQS standard.[16] GASP also recognizes that under the NAAQS standards for PM_{10}[17] the Mobile MSA is required to have 0-1 monitor. As such, ADEM is in compliance with NAAQS even where it has closed the Mobile MSA's only PM_{10} monitor.

However, GASP maintains that an ambient air monitoring plan that adequately protects human health will seek to implement more, not less monitoring. Accordingly, it can be argued that the Mobile MSA suffers a detriment where they once had a site monitoring PM_{10} and as of 2014 they no

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[13] The "Overview of Alabama's Air Monitoring Network" section of the Plan refers to "a proposed network to be implemented during 2014."

[14] ADEM, State of Alabama Ambient Air Monitoring 2014 Consolidated Network Review (2014), http://adem.alabama.gov/programs/air/airquality/2015AmbientAirPlan.pdf at 17 (last visited Jun. 30, 2015) at 21.

[15] U.S. EPA AirData, http://www.epa.gov/airdata (last visited Jun. 26, 2015).

[16] $150\mu g/m^3$ under 40 C.F.R. § 50.6

[17] *See* 40 C.F.R. § 58, APPENDIX D

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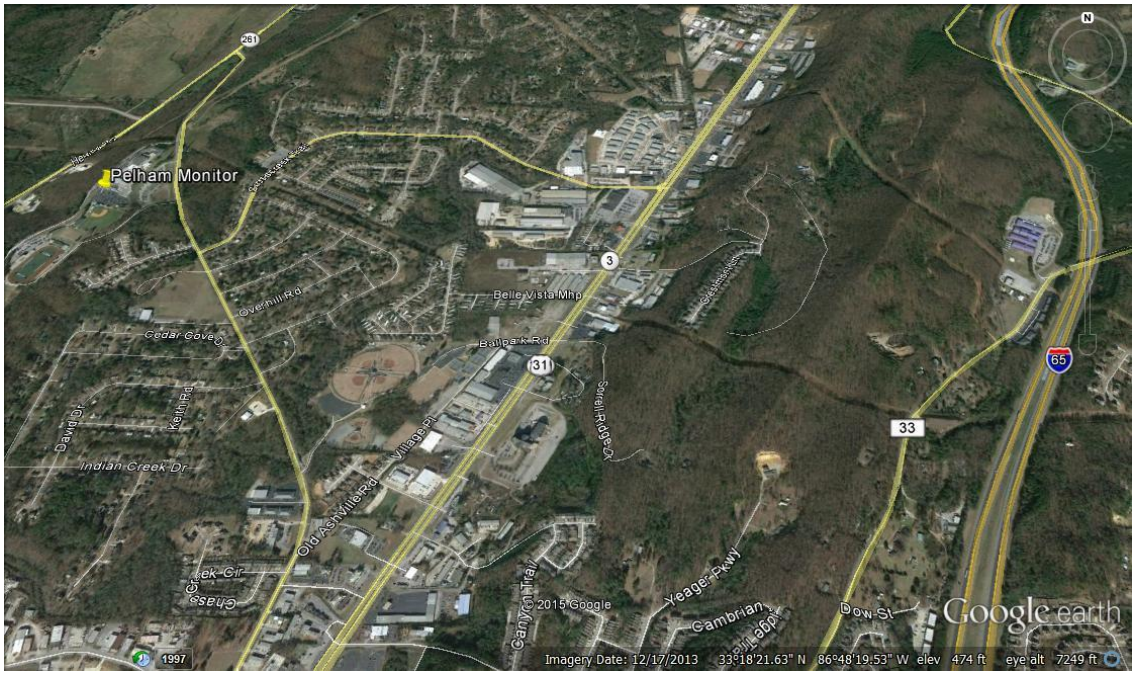
longer have any such air quality monitor. GASP would encourage ADEM to find another site in the Mobile MSA without infrastructure problems and begin monitoring for PM_{10} once more as part of next year's Ambient Air Monitoring Plan.

2. Another $PM_{2.5}$ monitor should be installed in Pelham to account for primary PM and evenly distribute monitoring geographically throughout the Birmingham-Hoover MSA.

Interstate 65 connects about 367 miles of traffic in Alabama.[18] From downtown Birmingham to Pelham, I-65 carries 6 lanes, which often generate heavy traffic.[19] $PM_{2.5}$ is primary PM, which is often emitted from cars and trucks. Pelham High School is located about five and a half miles from I-65 (as seen in the map below).



Because Pelham is in close proximity to I-65, which contains heavy traffic and thus is a source of $PM_{2.5}$ emissions, it would be prudent for ADEM to find another location for the Pelham monitor. Although the Pelham monitor has the lowest design value for the Birmingham-Hoover MSA, when considering the particle pollution that results from a heavily traveled interstate, Pelham would benefit from ADEM continuing to monitor $PM_{2.5}$.

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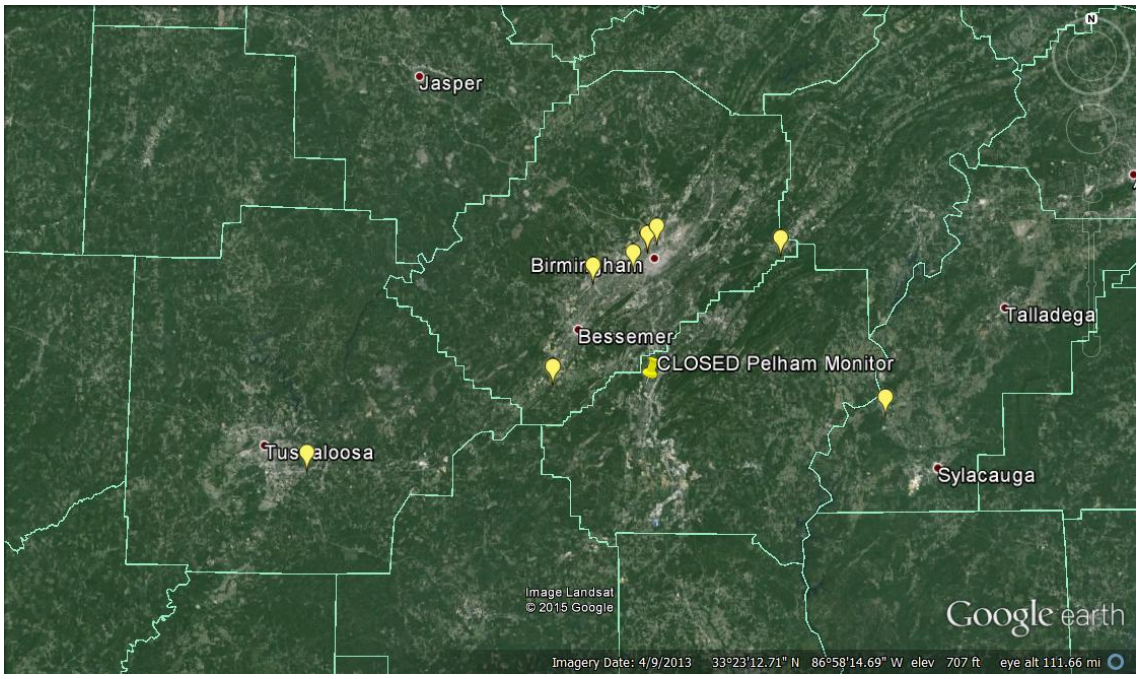
[18] Federal Highway Administration, Route Log and Finder List-Table 1-Main Routes (2014), http://www.fhwa.dot.gov/reports/routefinder/table1.cfm (last visited Jun. 29, 2015).
[19] Id.

Similarly, the closure of the Pelham monitor leaves a geographical gap in $PM_{2.5}$ monitoring for the Birmingham-Hoover MSA (see the map below).



ADEM and JCDH can more fully assess the $PM_{2.5}$ emission levels for the entire Birmingham-Hoover MSA when all areas are adequately monitored. Accordingly, in order to ensure a full assessment of the air quality in the Birmingham-Hoover MSA, ADEM should relocate the Pelham monitor.[20]

B. JCDH

1. Where the mineral wool piles (MWPs) still have not been removed, it would be imprudent for JCDH to discontinue monitoring for CO at the Sloss Shuttlesworth monitor

In the Carbon Monoxide (CO) Network section of the Plan, JCDH "is proposing to discontinue monitoring for CO at the Sloss Shuttlesworth site due to low concentrations and the facility shutdown of the source (in 1999), Walter Energy Mineral Wool facility that was the primary contributor to and reason for monitoring CO at the Sloss Shuttlesworth site. JCDH installed the CO monitor in 1996 as a fenceline site for the mineral wool facility.[21]"

Walter Coke has been in operation since 1920 where the primary product is coke, however slag fibers (e.g. mineral wool) were produced until

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[20] *See generally* Regional Planning Commission of Greater Birmingham, 2014 Air Quality Determination Report (2015), http://www.rpcgb.org/transportation/regional-transportation-plan/air-quality-conformity/ (last visited Jun. 29, 2015).

[21] ADEM, State of Alabama Ambient Air Monitoring 2015 Consolidated Network Review (2015), http://adem.alabama.gov/programs/air/airquality/2015AmbientAirPlan.pdf at 17 (last visited Jul. 2, 2015) at 17.

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the facility closed in 1999.[22] Walter Coke reported in a 1989 Administrative Order that the MWPs contain mineral wool, shot, coke and flue dust from mineral wool production.[23] To date, the MWPs have not been removed.

The CO levels reported by the Sloss Shuttlesworth monitor do not support JCDH's reasoning for discontinuing monitoring. By referencing **TABLE 2**, it is clear that CO levels were quite high, sometimes even exceeding NAAQs standards[24] even after the mineral wool facility closed in 1999. Specifically, in 2001, two years after the facility closed, the Sloss Shuttlesworth monitor showed exceedances for both 1 Hour and 8 Hour duration descriptions. As recently as 2008 the Sloss Shuttlesworth monitor showed an exceedance of the NAAQS standards for the 8 hour duration description. Where the Sloss Shuttlesworth monitor shows exceedances of CO, sometimes greater than those in the 1996-1999 period in which the mineral wool facility was operating, JCDH's reasoning for closing the CO monitor is suspect.

Additionally, where the MWPs have not been removed, it would be imprudent to discontinue CO monitoring at the Sloss Shuttlesworth monitor. In July of 2013, EPA suggested that on March 24, 2014 an outline of potential cleanup options for the MWPs could be expected[25]. However, GASP is unaware of any such cleanup plans for the MWPs. Accordingly, it is reasonable for GASP to assume that cleanup or removal of the MWPs could occur in the near future. JCDH's proposal to discontinue the CO monitor prior to the cleanup or removal of the MWPs, which are the byproduct of the facility faulted for the CO exceedances, is both premature and imprudent. GASP contends that the Sloss Shuttlesworth monitor should continue to monitor CO, both because the MWPs have not been removed and the reasoning for discontinuing CO monitoring is not sound.

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[22] Booz Allen Hamilton, Sample analysis report revision 5: Sample collection and analysis at the Walter Coke facility (2013), http://www2.epa.gov/sites/production/files/2015-04/documents/walter_mineral_wool_piles.pdf (last visited Jul. 2, 2015).

[23] Id.

[24] 40 C.F.R. § 50.8 (2015).

[25] EPA, Quarterly Progress Newsletter. "Facility cleanup: Resource Conservation and Recovery Act Corrective Action Program, Walter Coke, North Birmingham, AL." Vol. 1. http://www2.epa.gov/sites/production/files/2014-04/documents/rcra-wc-1-newsletter-july-2013-final_0.pdf (last visited Jun. 26. 2015).

TABLE 2: CO-SLOSS SHUTTLESWORTH MONITOR[26]

YEAR	DURATION	FIRST MAX	SECOND MAX
2014	1 Hour	1.5	1.2
	8 Hour	.8	.8
2013	1 Hour	1.7	1.5
	8 Hour	.8	.7
2012	1 Hour	2.9	1.4
	8 Hour	1.3	1
2011	1 Hour	2.9	1.4
	8 Hour	1	.9
2010	1 Hour	1.8	1.7
	8 Hour	1.2	1.1
2009	1 Hour	15.1	12.1
	8 Hour	7	6.7
2008	1 Hour	19.6	15.9
	8 Hour	**10.7**	8.1
2007	1 Hour	20	18.7
	8 Hour	**9**	8.6
2006	1 Hour	**35.3**	26.3
	8 Hour	**9.6**	**9.5**
2005	1 Hour	22.3	20.9
	8 Hour	**9**	8.8
2004	1 Hour	15.1	15
	8 Hour	8.3	8.2
2003	1 Hour	9.6	9.1
	8 Hour	6.4	4.5
2002	1 Hour	18.5	17.7
	8 Hour	**12.3**	**11.7**
2001	1 Hour	**36.9**	33.5
	8 Hour	**25.1**	**24.3**
2000	1 Hour	27.8	23.6
	8 Hour	**16.4**	**16.3**
1999	1 Hour	33.8	32.3
	8 Hour	**26.3**	**19.8**
1998	1 Hour	31.6	23.4
	8 Hour	**17.1**	**12.1**
1997	1 Hour	26.6	
	8 Hour	**13.1**	**9.5**
1996	1 Hour	18.8	17.8
	8 Hour	**12.2**	10.5

[26] U.S. EPA AirData, http://www.epa.gov/airdata (last visited Jun. 26, 2015).

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2. Where the EPA is still acting under its CERCLA authority at the 35th Avenue Site and the Sloss Shuttlesworth monitor collected data for only two years, JCDH should continue monitoring for $PM_{2.5}$ at this site.

In APPENDIX A of the Plan, JCDH states that there are no plans to continue monitoring for $PM_{2.5}$ at the Sloss Shuttlesworth site. JCDH reasons that "this monitor was operated as a special purpose monitor for approximately one year *to address community concerns*. Sampling was completed and compared to concentrations at the North Birmingham site. Concentrations were relatively similar."[27]

As previously mentioned, the Northern Birmingham Communities suffer a disproportionate share of air pollution in the Birmingham-Hoover MSA. Under its CERCLA authority, the EPA began a Site Inspection in 2009 and refers to the area as "the 35th Avenue Site." The 35th Avenue site is a mixed industrial and residential area of Birmingham, Alabama. "Since 1886 the area has been home to 20 foundries and kilns; seven coal, coke or byproducts facilities[…]By 1981, 20[%] of the land area was devoted to large industrial plants."[28] In the HRS Documentation Record, the EPA states that "*[a]ir is the primary source of deposition within the 35th Avenue site [area of observed contamination]* from smokestacks and windblown particles from process fires and other stockpiled material."[29] Sampling in the 35th Avenue study area showed the presence of lead, arsenic and BaP, which is most likely due to emissions from facility stacks.[30]

It is understandable that the Northern Birmingham communities were concerned about $PM_{2.5}$ emissions and thus requested that JCDH's Environmental Health Director include monitoring for $PM_{2.5}$ at the Sloss Shuttlesworth site. Where EPA recommended listing the 35th Avenue Site on the National Priorities List (NPL),[31] it does not compute that JCDH seeks to discontinue monitoring for criteria pollutants. Where the EPA is still acting under its CERCLA authority, and has recommended that the 35th Avenue Site be listed as a Superfund site, it would be imprudent, and bordering on negligent, to discontinue monitoring for criteria air pollutants at the 35th Avenue Site.

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[27] ADEM, State of Alabama Ambient Air Monitoring 2015 Consolidated Network Review (2015), http://adem.alabama.gov/programs/air/airquality/2015AmbientAirPlan.pdf at 17 (last visited Jul. 2, 2015) at 53. (emphasis added).
[28] EPA. HRS Documentation Record, http://www.epa.gov/superfund/sites/docrec/pdoc1897.pdf (last visited Jun. 29, 2015) at 16. (emphasis added).
[29] Id. at 16 (emphasis added).
[30] Id. at 43.
[31] National Priorities List, Proposed Rule No. 61, 79 Fed. Reg. 183, 56540 (proposed Sept. 22, 2014) (to be codified at 40 C.F.R. pt. 300).

Moreover, as seen in **TABLE 3** below, the 98th percentile values for the Sloss Shuttlesworth and North Birmingham sites differ. NAAQS standards for $PM_{2.5}$ are averaged over three years.[32] The Sloss Shuttlesworth site contains data for only two years: 2013 and 2014. Accordingly, JCDH cannot even assess the $PM_{2.5}$ standard because there is not sufficient data for a third year of measurements where the $PM_{2.5}$ monitor will be discontinued for 2015. At the very least, especially considering monitoring for $PM_{2.5}$ at the Sloss Shuttlesworth site occurred to address community concerns, the monitor should collect emissions data for *at least* three years. GASP encourages JCDH to continue monitoring for $PM_{2.5}$ at the Sloss Shuttlesworth site.

TABLE 3: 24 HOUR $PM_{2.5}$-SLOSS SHUTTLESWORTH AND NORTH BIRMINGHAM MONITORS[33]

Year	Monitor	98th Percentile	3 year average
2014	Sloss Shuttlesworth	23	
	North Birmingham	26	
2013	Sloss Shuttlesworth	24	
	North Birmingham	20	
2012	Sloss Shuttlesworth	N/A	
	North Birmingham	23	
	Sloss Shuttlesworth		23.5*
	North Birmingham		23

*3 year average not available for Sloss Shuttlesworth site because monitoring began in 2013.

IV. Conclusion

GASP maintains that a comparison to the past is the incorrect standard. Although air quality has improved in Alabama, we still have air quality issues that adversely affect the health of Alabama citizens. Especially when considering that regulations for air quality are tightening, Alabama agencies charged with protecting our air and public health should be calling for more, not less monitoring. Accordingly, GASP encourages the state agencies—ADEM, JCDH and HDNREM—to take seriously our concerns and recommendations. A comprehensive Ambient Air Monitoring Plan will improve air quality and thus the health of Alabamians.

[32] 40 C.F.R. § 50.13 (2015).

[33] U.S. EPA AirData, http://www.epa.gov/airdata (last visited Jun. 26, 2015).

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We appreciate the opportunity to comment.

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